# United States Patent Office.

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## IMPROVEMENT IN CORN-HUSKER, SHELLER, &c.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, MARTHA JONES, of Amelia county, and State of Virginia, have invented certain new and useful Improvements in Machines for Husking, Shelling, Cutting up, and Separating the Husks from the Corn at one operation; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a front elevation of the machine, and

Figure 2 a side elevation taken in the line *x x* of fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to the construction of a machine capable of husking, shelling, cutting up the husks, and separating them from the grain at one operation; or the devices for shelling and separating the husks from the corn may either or both be dispensed with, and the corn be husked, and the husks separated from the ears, or merely the husking-devices and those used to cut up the husks be employed.

The invention further consists in the employment of certain devices to accomplish the results above referred to, hereinafter more fully described.

It is well known that much nutriment is contained in corn-husks, and when properly cut up and mixed with water and meal, or mill-feed, the husks thus prepared are deemed an excellent substitute for hay or straw, which are ordinarily cut up to mix with water and mill-feed for horses or other farm-animals. The cut husks are also employed alone, at times, as a substitute for hay or straw for farm-stock, and it is found more economical to feed them when cut up, as great waste, caused by their being pulled from the manger or rack, and trodden under the feet of the animals, arises from using them without being cut up. The cut husks may likewise be used for mattresses and other like purposes.

In the accompanying drawings, A A′ represent two standards firmly attached to the bed C, between which the wheel B, hung on the axle *a*, having its bearings, *r r′*, on the standards A A′, is made to revolve. The wheel B has projections *b b* on its circumference, which are employed to tear the husks on the ears introduced separately into the spout *s*, and said projections also are used to give a rotary motion to the ear. That portion of the spout *s* which lies opposite the face of the wheel B is left open on the side next the wheel, and the spring *o* is employed to press the ear of corn against the face of the wheel. *c c* are circular knives, spirally arranged on the face of the wheel, and designed to cut up the husks, and assist in husking the ears. These knives are attached separately to the wheel by any ordinary fastening, so that any one or more may be readily replaced if broken. *d d* are projections, similar to those ordinarily employed in shelling corn, and arranged around the axle *a* of the machine, as fully shown in fig. 1 of the drawing. *h* is an axle, having its bearings K K′ in the standards A A′, and carrying a pulley, *e*, connected by an endless belt, *c′*, with the pulley *q* on the axle *a* of the wheel B. Attached to the axle *h* are the beater-arms *n* of the separator. The beater-arms are surrounded by a casing, open at the mouth *z*, just below the bottom of the spout *s*. *m* is an inclined board under the lower end of the spout, on which the corn drops by reason of its gravity. P is a crank, to which power may be applied to give a rapid rotary motion to the axle of the wheel B, and, through the endless belt *c′*, to the separator.

The operation of the machine is as follows: The ears of corn are introduced at the upper end of the spout, and the ears are pressed by the spring against the face of the wheel, and the ears of corn receive a rotary motion, and are cut somewhat by the projections *b b*. The ears, by reason of their gravity, are then operated upon by the spirally-arranged knives *c c*, which thoroughly husk the ears, and cut up the husks; the projections *d* on the wheel then shell the ears, the corn falling upon the inclined board *m*. The blast from the fan-wheel drives the lighter husks away from the corn.

It is obvious that the shelling-device or projections *d d* may be dispensed with, and I design constructing wheels without these projections, so that the corn may be husked, and the husks cut up, and separated without shelling the corn, or both the shelling and separating-devices may be dispensed with, and the corn be husked only, and the husks cut up at the same operation.